

## CLAIMS:

1. A method for reliable transmission of data packets from a transmitter (10) to a receiver (7), preferably for transmitting data packets from the rotating image acquisition unit of a computed tomography apparatus to the fixed stator, in which:

- a) the transmitter continuously sends data packets and at the same time stores a copy thereof in a buffer (3);
- b) the receiver informs the transmitter of success or failure of the transmission of data packets with the aid of an acknowledge signal (9); and
- c) the transmitter again sends a defectively transmitted data packet from the buffer (3), whereas it erases successfully transmitted data packets from the buffer.

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2. A method as claimed in claim 1, wherein, immediately after receiving an acknowledge signal (9), the transmitter (10) again sends the data packets affected thereby, or erases them.

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3. A method as claimed in claim 1 or 2, wherein, if the buffer (3) is full, the transmitter (10) stops the continuous transmission of data packets until the arrival of acknowledge signals (9) concerning successfully transmitted data packets.

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4. A method as claimed in at least one of claims 1 to 3, wherein the transmitter (10) collects acknowledge signals (9) and processes them as a function of the filling level of the buffer (3).

5. A transmitter (10) for reliable transmission of data packets to a receiver (7), including

- a) an input (1) for data packets to be transmitted,
- b) a transmitting unit (5) for sending data packets via a transmission link (8),
- c) a buffer (3) for storing copies of the transmitted data packets,
- d) a receiving unit (4) for receiving acknowledge signals (9) from the receiver which signal the success or failure of the transmission of data packets, and

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e) a control unit (4) which controls the relaying of data packets from the input (1) and from the buffer (3) to the transmitting unit (5), feeds data packets not transmitted successfully to the transmitting unit once again, and erases successfully transmitted data packets from the buffer.

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6. A transmitter as claimed in claim 5, wherein the input has a buffer (1) for data packets to be transmitted.

7. A transmitter as claimed in claim 5 or 6, wherein a buffer (2) for data packets  
10 to be transmitted is arranged upstream of the transmitting unit (5).

8. A transmitter as claimed in at least one of claims 5 to 7, wherein the transmitter (10) is arranged in the rotating image acquisition unit of a computed tomography apparatus and the receiver (7) is arranged in the associated fixed stator.

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9. A computed tomography apparatus which includes a transmitter (10) and a receiver (7)

- the transmitter being arranged to send data packets continuously and to store at the same time a copy thereof in a buffer (3),
- the receiver being arranged to inform the transmitter of success or failure of the transmission of data packets with the aid of an acknowledge signal (9), and
- the transmitter being arranged to send a defectively transmitted data packet from the buffer (3), whereas it erases successfully transmitted data packets from the buffer.

25 10. A computed tomography apparatus which includes a transmitter (10) and a receiver (7), which transmitter includes:

30 a) an input (1) for data packets to be transmitted,  
b) a transmitting unit (5) for sending data packets via a transmission link (8),  
c) a buffer (3) for storing copies of the transmitted data packets,  
d) a receiving unit (4) for receiving acknowledge signals (9) from the receiver which signal the success or failure of the transmission of data packets, and  
e) a control unit (4) which controls the relaying of data packets from the input (1) and from the buffer (3) to the transmitting unit (5), feeds data packets not transmitted successfully

to the transmitting unit once again, and erases successfully transmitted data packets from the buffer.